AH
AHD
AHDS

Air to water heat pump

AH - 290 / AHD 290 / AHDS 290

Air to water heatpump • Storage capacity 285 liter • Very high COP of 3,2 / 3,5 • Suitable for air temperatures between 0°C-35 °C (depending on the model) • Plug and play installation • Easy and user friendly control • Water temperature with the heat pump up to 55°C • Additional electric element of 1,5 kW standard • Water temperature with additional electric element up to 65 °C • Very silent operation • AH 290 basic version with air intake and air outlet indoors • AHD 290 with air intake and air outlet from outside the building and defrost function • AHDS 290 with additional integrated solar heat exchanger for thermal solar applications

Innovation has a name.

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Technical specifications

		AH 290	AHD 290	AHDS 290
Functioning parameters				
Minimum air temperature	°C	8	0	-
Maximum air temperature	°C	35	35	-
Air flow per hour	m^3	280	280	-
Max hot water temperature heatpump	°C	55	55	-
Max hot water temperature heatpump + electric element	°C	65	65	-
Electrical data				
Main electric connection		230(-15%/+10%)/50(+/- 1Hz)		
Motor		AC	AC	-
Power consumption	W	560	560	-
Electric connection	A	13	13	-
COP	-	3,2	3,5	-
Power consumption electric element	kW	1,5	1,5	-
Fan speed	r.p.m.	2500	2500	-
General/Cooling info				
Heat capacity	kW	1,96	1,96	-
Refrigerant		R 134 a	R 134 a	-
Refrigerant filling	Kg	0,9	0,9	-
Maximum working pressure tank	bar	8	8	-
Sound level (1 meter in front of the unit)	dB	56	56	-
Anodes	-	1	1	-
Draw-off capacity				
Storage capacity	l	285	285	-
Maximum temperature setting heatpump	°C	55	55	-
Maximum temperature setting heatpump + electric element	°C	65	65	-
T_{cold} = 10°C / T_{set} = 55°C (Heatpump function only)				
30 min ΔT = 28 °C	l	400	400	-
60 min ΔT = 28 °C	l	430	430	-
90 min ΔT = 28 °C	l	460	460	-
120 min ΔT = 28 °C	l	490	490	-
Continuous ΔT = 28 °C	l/h	60	60	-
Heating-up time ΔT= 28°C	min	289	289	-
T_{cold} = 10°C / T_{set} = 55°C (Heatpump function only)				
30 min ΔT = 45 °C	l	249	249	-
60 min ΔT = 45 °C	l	268	268	-
90 min ΔT = 45 °C	l	286	286	-
120 min ΔT = 45 °C	l	305	305	-
Continuous ΔT = 45 °C	l/h	37	37	-
Heating-up time ΔT= 45°C	min	465	465	-
T_{cold} = 10°C / T_{set} = 65°C (Heatpump + electric element)				
30 min ΔT = 55 °C	l	256	256	-
60 min ΔT = 55 °C	l	283	283	-
90 min Δ = 55°C	l	310	310	-
120 min ΔT = 55 °C	l	337	337	-
Continuous ΔT = 55°C	l/h	54	54	-
Heating-up time ΔT= 55°C	min	398	398	-
Shipping data				
Empty weight	kg	105	105	-
Weight including packaging	kg	115	115	-
Maximum weight	kg	390	390	-
Width packaging	mm	765	765	-
Height packaging	mm	1945	1945	-
Depth packaging	mm	765	765	-

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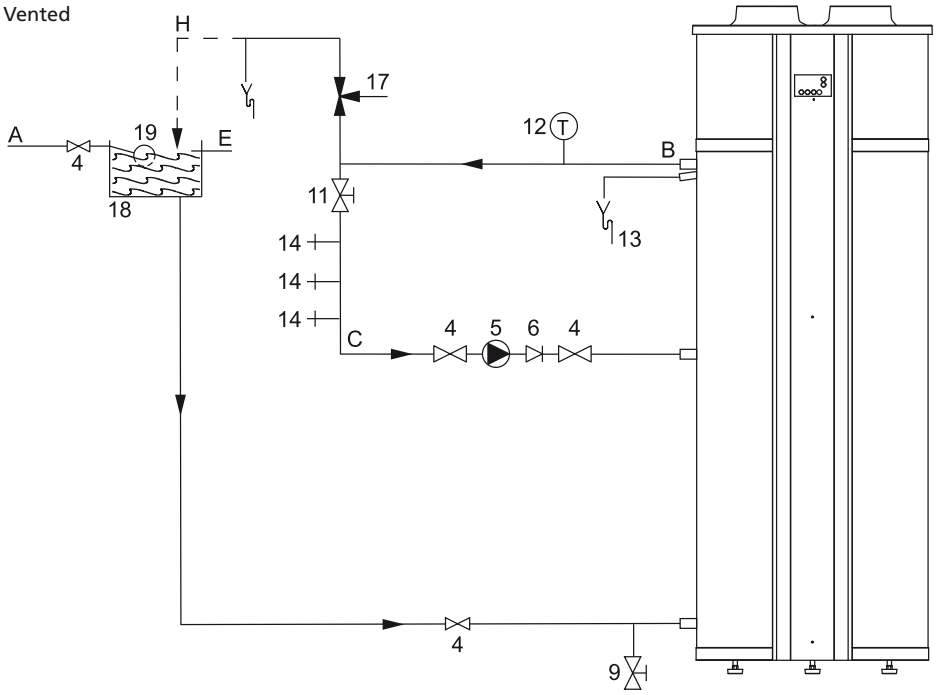
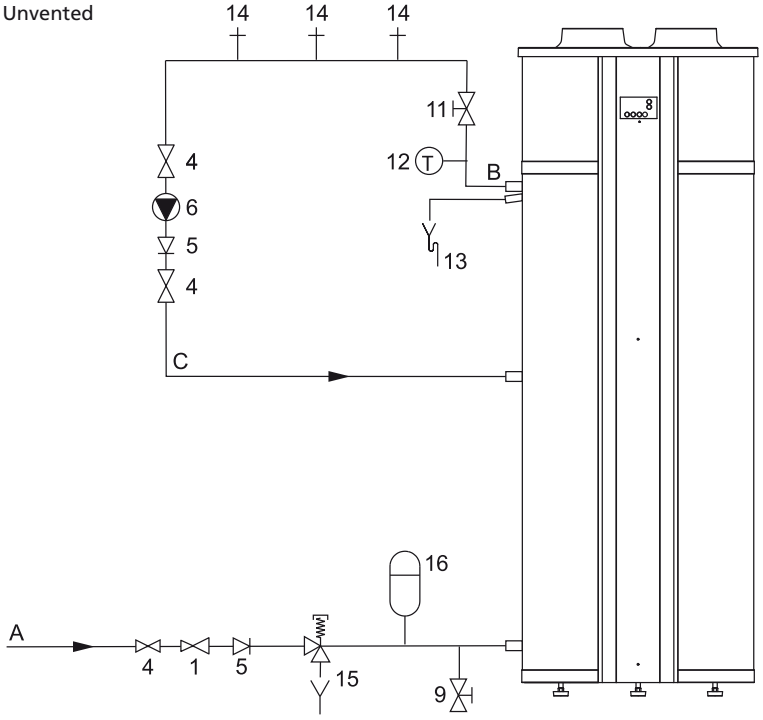
Installation diagrams

Vented



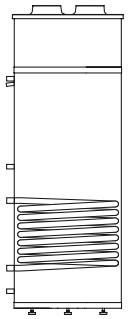
Unvented



A Cold water
B Hot water
C Return circulation

1 Pressure reducing valve
4 Stop valve
5 Non return valve
6 Circulation pump
9 Drain valve
11 Isolating valve
12 Temperature gauge
13 Condensate drain
14 Hot water outlets
15 Expansion relief valve
16 Expansion vessel
17 Three-way valve
18 Hot water tank
19 Float valve

Vented (AHDS)



At this moment the AHDS for solar applications is being fine-tuned by our Engineering Department. For more information, please contact our Technical Support Group.

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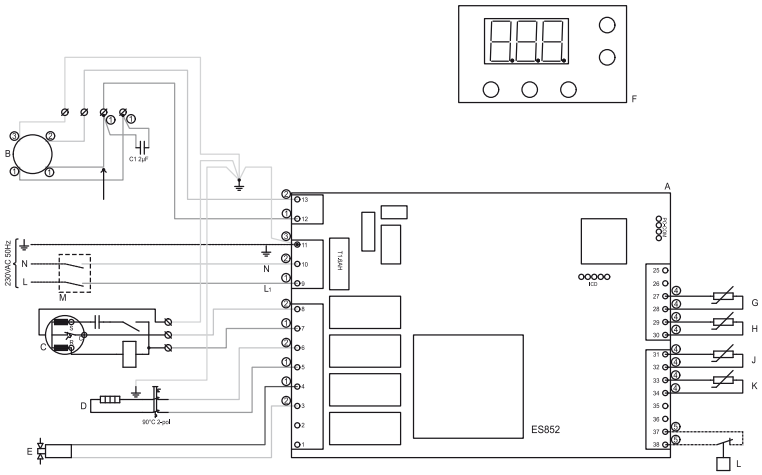
AH(D)(DS)

Electrical diagrams



COMPONENTS

- A Controller
- B Fan
- C Compressor
- D Electric element
- E Magnet valve (short or long circuit)
- F Display (integrated in the control)
- G Temperature sensor (T5 - solar coil)
- H Temperature sensor (T6 - solar coil)
- J Temperature sensor (T7 top of the tank)
- K Temperature sensor (T8 bottom of the tank)
- L High pressure switch
- M Double pole mains switch

Colour code cables

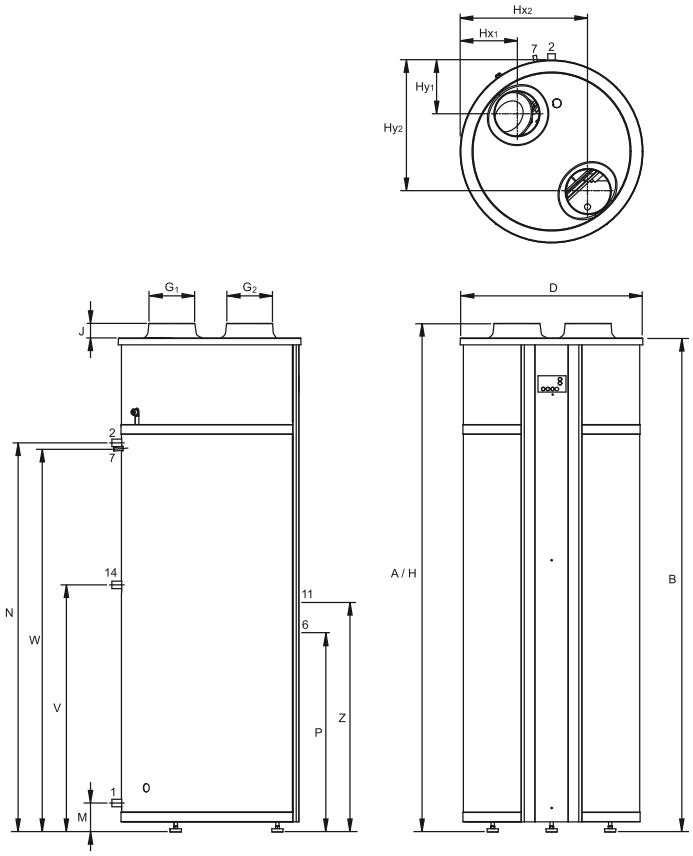
- ① = brown
- ② = blue
- ③ = yellow/green
- ④ = black
- ⑤ = white

CONNECTIONS SOLAR CONTROLLER

1	-	-
2	-	-
3	N	Magnet valve (short or long circuit)
4	L	
5	L	Electric element
6	N	
7	L	Compressor
8	N	
9	L_1	Power supply
10	N	
11	⏚	
12	L	Fan
13	N	
25	-	-
26	-	-
27	-	Temperature sensor (T5 - solar coil)
28	-	
29	-	Temperature sensor (T6 - solar coil)
30	-	
31	-	Temperature sensor (T7 top of the tank)
32	-	
33	-	Temperature sensor (T8 bottom of the tank)
34	-	
35	-	-
36	-	-
37	-	High pressure switch
38	-	

AH(D)(DS)

Dimensions



		AH 290	AHD 290
A	Total height	1815	1840
B	Unit height	1790	1790
D	Diameter unit	660	660
G_1	Diameter air-intake	-	160
G_2	Diameter air outlet	-	160
H	Height-air intake / air outlet	1815	1840
Hx_1	x-position air intake	-	190
Hx_2	x-position air outlet	-	480
Hy_1	y-position air intake	-	200
Hy_2	y-position air outlet	-	470
J	Height air intake / air outlet	-	55
M	Height cold water inlet	110	110
N	Height hot water outlet	1410	1410
P	Height cleanout	45	650
T	Height heat exchanger inlet	-	-
U	Height heat exchanger outlet	-	-
V	Height circulation connection	820	820
W	Height condensate outlet	1345	1345
Z	Height electric element	925	925
1	Cold water connection (male)	R 1"	R 1"
2	Hot water connection (male)	R 1"	R 1"
6	Clean out opening	Ø 110	Ø 110
7	Condensate outlet (male)	Ø 12	Ø 12
11	Electric element	-	-
14	Circulation connection (female)	R 1"	R 1"

On all AH(D)(DS) heatpumps a warranty of 5 years on the tank will apply and 1 year on all parts.

Data subject to change INT/0808/AH/02
Terms and conditions apply, please refer to our website.

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